STAT

Mr.
To prove our theory.
SS

Gordon Speedie

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TO: The Presidents of Selected Research Laboratories in the U.S.

RE: Communications Theory, Behavior Patterns and/or
Physiological and Psychological Studies

Dear Sirs:

We seek laboratory assistance to prove or disprove the theory presented in the enclosed reprint from the November, 1959, issue of Main Currents in Modern Thought.

The fundamental on which the theory is based is expressed by the postulated law that: Knowledge and time, like matter and energy, are interchangeable, and their totals constant.

This explains the marked reference in the article, where the basic potential of electromotive force called volt (in electricity) could be one form of a common force called meaning.

To test this theory, we visualize two possible approaches which we outline below:

1) The use of enlarged tables of word values (as in enclosed article, "Have You Word Power?"). This would prove it to a limited audience.

2) The use of dogs, as in the Pavlov experiment in Russia, where saliva runs when a dog conditioned to a bell expects food. In this case, dogs trained for years so they eat no food without their masters' permission, would be used for the Pavlov experiment. Then, the amount of time it takes to condition such dogs would be compared to the past life time interval during which the dog obeyed his master. These time values may correlate with the fundamental concept, and the equation for word speed.

This may also show that the time to train the dog varies if the master is present, and also, if the dog's ancestors' training had influence on the test dog's behavior.

Possibly, you can suggest other experiments, and one of your invention may be even more helpful. In any event, we ask you to immediately acknowledge receipt of this request, and at your earliest opportunity, we would appreciate a letter proposing such a test and a quotation covering the cost which would be involved.

Very truly yours,

Gordon A Speedie

Gordon Speedie

Speed Words *Jan 1960*

IN the Fall 1959 quarterly issue of *American Documentation*, Gordon Alexander Speedie has written an article on "Speed Words," in which he suggests that the flow of information through the printed word may be analyzed in much the same way as the flow of electricity. He makes an analogy between the dialectic field wherein ideas produce psychomotive force and the magnetic field wherein electromotive force is transmitted. The article is intended to formulate a conjecture which might be the subject of investigation.

The author defines a speed word as one which produces understanding in the least possible time. He intends, by this term, something more than the commonplace idea that short words invoke meaning more quickly than long ones. He rather proposes to discover the pattern of understanding which different words produce, by scientific analogy and experiment. Using the term "meaning time" to signify the rate at which words convey understanding, the author aims to introduce the time dimension. By recognizing common terms "for both systems, the potential of electromotive force called volt . . . could be one form of a common force called meaning, expressed in a short time interval. . . . In the dialectic system, psychomotive force, called meaning time, could be another form of the same force of meaning, expressed in longer time intervals. In this form it might be described as thought force or emoticity."

Mr. Speedie compares the flow of current to the flow of thought, and discusses the resistance encountered in both systems. He seeks to express the relationships in the dialectic field mathematically, basing his method upon analogy. The laws of an electric system work when in a circuit: the dialectic system may depend upon parallel laws, if terms are rightly selected. Thus, in the electric field, 1. amperes (flow of current) equal volts ("meaning time") divided by resistance; and 2. watts output (power consumed) equals volts ("meaning time") multiplied by amperes (flow of current). In the dialectic field this can be transformed as follows: 1. word frequency (flow of thought) equals "meaning time" divided by the resistance of the circuit (audience experience) and 2. word speed (thought consumed-understanding) equals "meaning time" multiplied by word frequency (flow of thought). In this case, word frequency is defined as the number of occurrences of a word per million words used by a stated audience, the average time per word for a million words being the equivalent of a time value. "Meaning time" is the actual time interval since a new form of meaning for a word began. Audience resistance uses the individual as a unit: one person using a word once a year has a resistance of one; twice a year, one-half, and so on.

Using these terms as factors, Mr. Speedie measures the speed of words with the equation:

$$WS = MT \times WF$$

where WS is the relative speed of a word in terms of its understandibility, MT is the meaning time in years of word use, and WF is the word frequency per million words used by a stated audience. (For the latter figure, the author cites as reference the indexes in *The Teachers Word Book*, by Thorndike and Lorge.)

Use of this method experimentally has brought Mr. Speedie to several conclusions: Certain words, such as father and water, are basically the same in many languages; the same thing is true of numbers. Also, as W. L. White has pointed out, changes which take place during the history of a language are regular and consistent enough to permit comparisons so that the earlier stages of language may be reconstructed. Obviously variations in word speed, as well as other factors suggest that all meaning is relative, and that the most lasting expression of relative meaning would be basic family words, and numbers. From this it would appear that "there may be as much meaning in a few dozen stable words, of greater meaning age than numbers, as there is in the numerical relationships of a few dozen digits in the decimal system," which supply the basis of the universal language of science, mathematics. In this way, the relative importance of many languages could be assessed, and the changing form of an even more basic or universal language might be revealed.

Obviously, a study of this kind has implications so far as communication and motivational research are concerned. Additional experiments may lead to a recognition that motivations hidden in the changing use of words are automated. As for communication, no matter how large and supple a vocabulary a writer may possess, he can communicate no better picture of his subject than his audience can understand. A scientific analysis of word speed could assist such a writer in choosing language whereby his audience would grasp his essential ideas most rapidly, yet it would allow him to retain his own style through flexibility of phrasing and imagery. At the same time, speed words might help to solve interdisciplinary problems, since they could lead to a more general acceptance of word usage to express scientific knowledge.

If the analogy can be pressed home, the author suggests, speed words would necessarily prove to be only part of a larger concept. This is that there may well be another non-material field which exerts governance upon action—a field of thought, above and yet related to known fields such as gravity, magnetism and electrostatics. If such a field were postulated and searched for a field constant and field units, language could in a mean sense, become a field constant, and the relationship of ideas field units.   —*S. J. Aylmer*

HAVE YOU WORD POWER

Electronic Computers Can Tell You

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Electronic computers can now show how many times more power there is in one word than another. For example, the word "I" has 42 times the power of the word "myself". The word "make" has a power 1710 times the power of the word "fabricate". Some people have such a highly developed intuition they can sense this difference in word power. Some cannot. If you think your intuition is as good as a high speed computer, mark the word you think is most powerful on each line below.

TABLE OF WORD POWER FOR CHOOSING EQUALLY APPROPRIATE WORDS

Word	Power	Word	Power
I	42	Myself	1
Fabricate	1	Make	1710
Largely		Much	
Time		Duration	
Cogitate		Think	
Present		Now	
Good		Benign	
Additional		More	
Arrange		Order	

Now see the end of the article for the computed figures and count the score. Each word checked correctly scores twelve. If you want to be more of an expert, guess the power values before turning to the answers.

Scores of 24 to 48 indicate high intuitive sense. Scores above 48 are exceptional below 24, unusual. It is possible that those with high scores may some day be great teachers, writers and leaders. It is probable that men of the past, whose writings we admire, would have had high scores. For example, such great and inspired words of man as The Lord's Prayer, the Gettysburg Address and some of the speeches of Winston Churchill, make us stop and think. Do words have measurable power? Can this power be measured? Can computers help us use it?

WORDS ARE CONVEYORS OF KNOWLEDGE

The theory that knowledge and time, like matter and energy, are interchangeable and their totals constant, may permit this kind of electronic computing of the power within

words and ideas, to provide better communication between religious, educational and business groups of all races.

The automobile conveys people from place to place, like words convey meaning from writer to reader. It tells at a glance how fast the car is moving. It does not tell where the car is going, or what the driver should do. It merely records the facts - that the car is moving a certain number of miles per hour. It is up to the driver as to what to do with this knowledge.

In a similar sense, words may be thought of as an automobile which conveys knowledge. It moves thought from the printed or spoken word from one person to another. Using an equation based on the above theory, electronic computers can tell, at any time, the relative speed with which the words in a message can move into men's minds and motivate their understanding. The faster words are absorbed, the easier it is for the mind to comprehend the meaning. Thus, there is a possibility that present use of mental capacity could be much more productive, and therefore, more work could be done in fewer hours.

COMPUTER CALCULATIONS COULD REDUCE INTERNATIONAL PROBLEMS

Scientists and computer technologists who have held preliminary discussions on the foregoing premise, and the use of computed power values for words and ideas, see possibilities of great potential benefit to humanity. By computing values for words in many languages, communication power between people of different nations might be increased with a corresponding increase of understanding.

Words which could have caused misunderstanding because of different power values within each nation's language may be retranslated into words of equal value. In some cases, such revisions in language may promote better understandings and increased cooperation between nations. In the larger sense, further use of power values could approach the universal language concept advocated by so many today.

AN INTELLECTUAL OPPORTUNITY

The time may be near when the idea that knowledge and time are interchangeable, and their totals a constant, will be accepted as a basic law of the intellect. When this happens, the decades which follow will see the growth of an intellectual science which will work hand in hand with the physical sciences.

In this kind of work, the intellectual student, seeking to communicate concepts of a higher form of knowledge and its expression in his imagination, will have the assistance of a computer, which extends his mental capacity. Whatever the student's discipline, he may be able to work with a computer, which contains the stored information from a full sized library. The computer may respond, by means of a built-in concordance, the way our parents used a concordance to find passages in a Bible. It may be arranged so that the computer reads the typed paper of the student, presenting word and phrase lists, with their computed power values, as guides to help the student. In this way, many intellectual students of the future may write as powerfully, simply and convincingly, as only the best minds did in the past.

Thus, an age of the intellect may develop as men who have discovered a higher form of knowledge and how to understand it, translate, by means of the most valued expressions of their contemporaries and predecessors, this knowledge into forms understandable to the contemporary intellect and to science.

This method of using the extensive memory capacities of computers could free the minds of intellectuals for more of the intuition, imagination and creative skill needed to provide for the needs of the exploding population. By this intuitive-intellectual teamwork, the computer will reduce errors of judgment and still leave final decisions to the intellect

MANY APPLICATIONS IN VIEW

Possible uses of this theory and its mathematics of word and idea power are presented in a paper to be published shortly, and abstracted this week in Main Currents in Modern Thought. The article is entitled "Speed Words", and is authored by Gordon Speedie, of West Medford, Mass.

The paper lists such specific applications as the following projects which seem practical and immediately possible.

1. Vocabulary Studies

Computing vocabulary values of individuals and selected groups.

2. Publisher and Speaker Word Analysis

A "Copy Mechanic" may read speeches, articles and books, as an author's synthetic audience, and provide an evaluation.

3. Competition Word Studies

Key word studies may be made for industry to determine competitive position of new words.

4. Political Action

Changing word meanings may be used to forecast the wants and needs of people in time for political action.
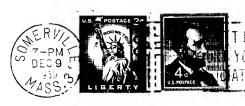
6. Integrated Thought Systems for Education

A table of inter-discipline knowledge may relate laws of greatest importance, and help students, good in one area of interest, to speed up understanding in other areas.

Word power computations. Much 3, Time 570, Think 1230, Now 12, Good 536, More 350, Order 18. (Figured from most recently available data as demonstration.)

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Ic of Mr. Allen Dulles

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